INPUT

ORDER/INVOICE/FULFILLMENT

ORIGINATOR (SIGNATURE) _____ PREPARED BY: TOF DATE: 6/26/85

ACTIVITY

- ☐ NEW ORDER
- ☐ CONTINUATION
- ☐ CHANGE
- ☐ CANCEL
- ☐ SPECIAL:
- ☐ FULFILLMENT ONLY
- ☒ SINGLE INVOICING
- ☐ MULTI-INVOICING: NO. INVOICES _____
- ☐ PENDING:

COMMISSION TO:		SOLD BY:	
_____	%	_____	%
_____	%	_____	%
_____	%	_____	%
_____	%	_____	%

APPROVED [signature] INITIAL 6/29/85 DATE

PRODUCT

	US	UK	PROJ. I.D./YEAR	TITLE OR DESCRIPTION	AMOUNT
☐ SUBSCRIPTION					
☒ CUSTOM	US		YPSG	Professional Services Proposal	$11,500
☐ MULTICLIENT					
☐ REPORTS					
☐ COPIES					
☐ CONSULT./PRESENT.					
☐ TAPES/MATERIALS					
☐ REIMBURSED COSTS					

CLIENT AUTH.

P.O. # _____ INPUT CONTRACT ☐ 2 LETTER ☒ VERBAL ☐

ATTACH ALL AUTHORIZING DOCUMENTS TO WHITE (CONTRACT) COPY.

ORIGINATOR / INVOICE

SHIP TO:*
NAME Ronald Rivenberg
TITLE _____
COMPANY Martin Marietta
ADDRESS 6305 Ivy Lane
Greenbelt MD 20770
PHONE (301) 982-6701

INVOICE TO: (IF DIFFERENT)
NAME Attn: Robert Nolan
TITLE _____
COMPANY Same Address
ADDRESS _____
PHONE ( )

* ☐ Check here if more than one shipping address and attach names and addresses to green (fulfillment) copy.

* ☐ Check here for address change to mail list.

INVOICE TO READ: (FOR OTHER THAN STANDARD WORDING)
For professional services specified in 4/29 letter to Mr Macaulay & the oil company research specified in the 5/21 letter to Mr Rivenberg

SPECIAL INSTRUCTIONS FOR HANDLING, BILLING, STAGGERED OR DELAYED PAYMENTS, ETC.

O.I.F. ONLY

INV. COMP.	BY:	DATE:	CLIENT #:	ORDER #:	INV. #:	MULTI-INVOICING _____ OF _____

ORIGINATOR/SHIPPING FULFILLMENT

ITEM DESCRIPTION OR TITLE	NO.	BY	DATE	ITEM DESCRIPTION OR TITLE	NO.	BY	DATE

FULFILLMENT TO BE COMPLETED IN: ☐ PALO ALTO ☐ LONDON ☐ OTHER _____

• WHITE - ACCOUNTING • GREEN - ACCOUNTING • YELLOW - ACCOUNTING • PINK - ORIGINATOR
• GOLDENROD - REGIONAL SALES MANAGER

R 1/81

May 21, 1985

Mr. Ronald Rivenberg
Martin Marietta Data Systems
6305 Ivy Lane
3rd Floor
Greenbelt, MD 20770

ATTN: Robert Nolan

Dear Ron & Bob:

Attached is the interim report covering the areas I discussed with Bob on Monday. I hope the data is useful - the averages shown here are at or above the ones we discussed at our meeting last week.

As I told Bob, the meeting this Friday would be an addition to the two in our proposal; the additional cost would be $1,000. As I also had indicated, the research required to obtain the oil company data will add $500 to the fee. (Note: the page of oil company data required visits to 4 locations of 3 libraries as well, of course, as numerous dead ends.)

I will be out of the office until after lunch on Wednesday. I will call you between 2 and 3 pm on Wednesday to discuss this information as well as to agree on next steps.

Sincerely,

Tom O'Flaherty
Principal Consultant

TO'F:lg
Enclosure

INPUT

1943 LANDINGS DRIVE, MOUNTAIN VIEW, CA 94043 (415) 960-3990

April 29, 1985

Mr. Ross Macaulay
General Counsel
MARTIN MARIETTA DATA SYSTEMS (MMDS)
6801 Rockledge Drive
Bethesda, MD 20034

Dear Mr. Macaulay:

Please accept this letter as a temporary contractual vehicle so INPUT can quickly begin the project we discussed on the telephone.

INPUT will prepare a detailed proposal for your approval. In the meantime, INPUT agrees to initiate a research project that will update the 1983 study on professional services billing rates. This update will also focus specifically on the 1978-82 time frame, companies with contracts in the middle east and companies performing complex systems work similar to that performed by MMDS for SADAF.

The work will be completed in 3 phases allowing MMDS to terminate the contract at the end of each phase. The phases are:

1. Define the questionnaire, survey the top three candidates, tabulate the responses and verbally present the results to MMDS.

2. Survey the next 7 candidates, tabulate the responses, analyze the data and verbally present the results to MMDS.

3. Prepare a written report of the findings of the study and spend two days with MMDS supporting the presentation of the data and other related tasks.

The fees, cummulatively, will not exceed the following; Phase 1 - $4,000, Phase 2 - $7,500 and Phase 3 - $11,000. INPUT will provide, in the formal proposal, a fixed price for the fees. The above fees are offered so work can begin immediately upon your concurrence below.

INPUT will complete Phase 1 within 2 weeks of your authorization and each subsequent phase will require 1 more week each.

CONFIDENTIAL

INPUT QUESTIONNAIRE

CATALOG. NO. YPSI9
SIC. CODE
SIZE CODE
AREA CODE
STUDY CODE
DATES
MM DD YY

STUDY TITLE:
TYPE OF INTERVIEW: ☐ VENDOR ☐ USER ☐ TELEPHONE ☐ ON-SITE ☐ MAIL

INTERVIEWER: _____

COMPANY: _____ CO. TYPE: _____

ADDRESS: _____ SALES: _____

_____ NO. EMPL: _____

_____

_____

INDUSTRY ☐

☐ DISCRETE MANUFACTURING	☐ UTILITIES	☐ INSURANCE
☐ PROCESS MANUFACTURING	☐ RETAIL	☐ GOVERNMENT - FEDERAL
☐ TRANSPORTATION	☐ BANKING	☐ GOVERNMENT - STATE & LOCAL
☐ MEDICAL	☐ WHOLESALE	☐ EDUCATION
☐ SERVICES	☐ OTHER	

INTERVIEWS

NAME	TITLE	TELEPHONE NO.

SUMMARY _____

REFERENCES _____

PROFESSIONAL SERVICES PRICING PRACTICES: 1985

INPUT is a research and consulting firm in Saddle Brook, NJ. We are conducting a study on professional service firms' pricing practices. In return for your taking part in our study, we will send you a summary of both our new and old reports at no charge.

1. Is your professional service business nationwide or is most of your work conducted in particular geographic areas?

   ( ) Nationwide

   ( ) Particular areas - Which ones?

   _____

   _____

   _____

   _____

2. Is each of the following customer or product areas a primary or secondary priority for your professional service activities?

	PRIMARY	SECONDARY
Commercial Accounts	_____	_____
Government Accounts	_____	_____
Federal ADP	_____	_____
Federal Embedded Computer (Weapons) Systems	_____	_____
State and Local	_____	_____
Manufacturing Applications*	_____*	_____*
Banking and Finance Applications	_____	_____
Health Care Applications	_____	_____
Other (describe)	_____	_____

* If primary or secondary manufacturing applications not checked, terminate interview.

3. If the average billing rates for your firm's management and technical staff equalled 100 in 1980, how would you see this index changing for your firm in each year up to 1985? Did you change your rates each year?

YEAR	INDEX	RATES CHANGES (CHECK)
1980	100	_____
1981	_____	_____
1982	_____	_____
1983	_____	_____
1984	_____	_____
1985	_____	_____

4. Could you provide me with your current (1985) rates per hour for the following categories? We have defined each title as including specific years of experience; if you do not use exactly the same definition, please provide the rate for the closest title and tell me what your definition is. What were these titles' rates in 1980 and 1983 (if dollars not available, give % of current rate).

TITLE	YEARS*	TITLE VARIANCE	1985 RATE ($ PER HOUR)	1980 RATE	1983 RATE
Account/ Field Manager	10-5				
Person whom Account/Field Manager Reports to (give typical title	15+				
Project Leader	7-10				
Principal Consultant (in a technical area)	10-15				
Senior Consultant (in a technical area)	9-10				

TITLE	YEARS*	TITLE VARIANCE	1985 RATE ($ PER HOUR)	1980 RATE	1983 RATE
Consultant (in a technical area)	8-10				
System Designer	7-10				
Senior Systems Analyst	5-7				
Systems Analyst	2-5				
Senior Programmer	5-7				
Programmer	2-5				

*Not including education.

5. Do you have formal variations (either higher or lower) from your standard rates related to:

	YES	NO
• Application Type (e.g., manufacturing vs general commercial).	_____	_____
• Geographic Area	_____	_____
• Special Expertise	_____	_____
• Other (describe) _____	_____	_____

FOR ALL AREAS ANSWERED "YES," ASK:

- Why?
- Give some examples.
- How large is the variance?

5b. DESCRIPTION OF RATE VARIATION

AREA	REASON	EXAMPLES	SIZE OF VARIANCE
Application Type (e.g., manufacturing vs.general commercial	_____	_____	_____
Geographic Area	_____	_____	_____
Special Expertise	_____	_____	_____
Other Describe	_____		
	_____		
	_____		

6. Do you ever give discounts from your standard rates?

( ) YES ( ) NO

IF YES:

- Under what conditions? _____

  _____

  _____

- How is this accomplished (e.g., reducing hourly rates, reducing billed hours, changing job categories, cost plus fixed fee)? _____

  _____

  _____

  _____

- About how often does this occur? _____

  _____

  _____

- About what percentage reduction from your standard rates is your typical discount? (May be one number or a range.) _____

  _____

  _____

7. When producing a fixed price proposal, do you use the same rate structure as used on T&M projects for project personnel?

( ) YES ( ) NO

IF NO, describe differences: _____

_____

_____

7b. Is a "surcharge" or "contingency factor" added to fixed price proposals over and above the result produced by your billing rate calculations (includes measuring number of hours)?

( ) YES ( ) NO

IF YES, how much, on the average? _____

7c. Sometimes you may perform task-oriented engagements, even though they are billed on a T&M basis. Do you use the same billing rate as for straight T&M work?

( ) YES ( ) NO

Why? _____

_____

_____

If NO, discuss differences: _____

_____

_____

8. Do you furnish a schedule of professional service rates to prospective clients?

( ) YES ( ) NO

IF YES: Would you send INPUT a copy?

( ) YES ( ) NO

ATTACHMENT

PROFESSIONAL CLASSIFICATIONS

Account or Field Manager - Senior level manager who monitors performance against the scope of work, and contract schedules and plans. The project leader reports directly to this individual. Field managers provide the principal interface with the customer on contract performance and staffing. (10-15 years experience)

Project Leader - Plans, monitors and directs the efforts under a contract. Responsible for all on-site efforts, as well as customizing and off-site efforts. (7-10 years experience)

Principal Consultant - Top level consultant within a function (software, applications, operations, data base, communications, etc.) who is capable of advising senior management within the technical or functional organizations. (20-15 years experience)

Senior Consultant - Senior level individual who advises on specialized systems functions. (9-12 years experience)

Consultant - Individual who works directly with line and data processing organizations and uses specialized knowledge to develop methods and procedures for systems installation and implementation. (8-10 years experience)

System Designer - Individual who translates the functional design into the computer system design. (7-10 years experience)

INPUT

PARK 80 PLAZA WEST-I • SADDLE BROOK, NEW JERSEY 07662 • (201) 368-9471

June 4, 1985

Mr. Robert Nolan, Jr.
c/o Mr. Ronald Rivenburg
6305 Ivy Lane - 3rd Floor
Greenbelt, MD 20770

Dear Bob:

Enclosed are three copies of the report (1 unbound for making further copies, if desired) plus three sets of an

- Executive Summary
- Analysis of Oil Company Performance
- Summary of Aggregate Billing Rate Changes

If you have any questions, please call.

I will send a draft of the respondent summary for your review shortly.

Sincerely,

Thomas O'Flaherty
Principal Consultant

TO'F:lg
Enclosure

PROFESSIONAL SERVICES PRICING

EXECUTIVE SUMMARY

- INPUT was engaged by Martin Marietta to prepare an update of a 1983 professional services pricing survey.

  - Data is included in this report from the following firms.

    . Arthur Andersen

    . Arthur Young

    . Price Waterhouse

    . Coopers & Lybrand

    . McAuto (Professional Services Group)

    . CDC (Professional Services Group)

    . Peat Marwick Mitchell

- Data for three of the "Big 8" Accounting firms were obtained from their Houston offices.

- Rates increased between 20 and 30% during the period 1980-1983 see attached (Exhibit). There is a great deal of variance in the highest and lowest rates charged for a particular title.

EXHIBIT : HOURLY RATES: OVERVIEW

	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN	DB CONSULTANT
AVERAGE (MEDIAN) RATES				
1980	$135	$113	$97	$117
1983	$170	$145	$122	$148
1985	$167*	$151	$140	$154
HIGHEST AND LOWEST RATES				
1980	$105-150	$80-120	$62-105	$95-140
1983	$120-228	$97-160	$76-140	$120-175
1985	$131-220*	$100-175	$78-155	$140-175*

* NO 1985 DATA AVAILABLE FOR VENDOR WITH THE HIGHEST 1983 RATE

EXHIBIT : HOURLY RATES: OVERVIEW

	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG I	APPL PROG II
AVERAGE (MEDIAN) RATES				
1980	$117	$95	$80	$78
1983	$145	$125	$97	$97
1985	$145*	$128*	$120	$97
HIGHEST AND LOWEST RATES				
1980	$100-120	$85-110	$60-102	$61-90
1983	$110-160	$98-140	$73-130	$69-113
1985	$125-160*	$120-150	$90-140	$85-125

* NO 1985 DATA YET AVAILABLE FOR VENDOR WITH THE HIGHEST 1983 RATE

PROFESSIONAL SERVICES PRICING

A. Background

- INPUT was commissioned by Martin Marietta to prepare an update to a 1983 professional pricing survey. The two studies differed in these respects:

  - The 1985 study has focused on larger professional service firms (see list of firms interviewed in Exhibit 1).

  - The price per hour rates for individual titles were ascertained for three benchmark years (1980, 1983 and 1985), rather than a single year.

  - One respondent's data is from the 1983 set of interviews, the others all represent interviews conducted in May 1985.

  - Information for three of the CPA firms is from their Houston office.

  - The questionnaires used in the two studies are shown in Appendices A and B.

- An interim report was prepared on May 22, 1985. This report is an expansion of that earlier report.

B. Professional Services Pricing

- The core of the study was to obtain hourly rates charged for ten SADAF titles (see Exhibit 2).

  - Since SADAF title names are not always recognized throughout the industry, these were crosswalked back to internal Martin Marietta titles, which were the basis for the titles used in both the 1983 and 1985 surveys. This crosswalk methodology was reviewed and approved by Martin Marietta staff.

  - Consequently, eight titles were used in the survey (shown in the left column of Exhibit 2).

- Exhibit 3 summarizes the rates found for each title, showing both the range and the average.

  - The range of highest and lowest rates shows that there is great diversity in billing practices in the industry.

. The highest 1980 rate was always higher than the lowest 1983 rate for all titles.

. In fact, the highest 1980 rate was often higher than the lowest 1985 rate for a particular title.

- The average billing rates show a consistent increase from 1980 to 1983 of 20-30% across all titles. The increase was considerably lower from 1983 to 1985, partly because 1985 data was not available for one vendor - who happened to have the highest 1983 rates.

- Exhibit 4A through 4B shows the detail data which was summarized in Exhibit 3. Generally, the respondents did not have much difficult in equating their own title structures with that used in the survey.

- With two exceptions, respondents were quite forthcoming with their current, 1985 rates.

. However, some respondents could not feasibly obtain the precise rates they charged in previous years and/or their rate increased were determined by applying an across the board percentage increase to all titles.

- Where respondents stated that across the board increases were used, INPUT applied these respondent-supplied factors to current rates to obtain earlier rates.

- In INPUT's opinion, this lack of precision and, to a degree, interest in prior year rates is understandable, given the lack of a business need for it in most situations.

- Note that it is common to have a range, rather than a single rate. This reflects experience, special skills, etc. for a particular job.

C. General Professional Service Firm Performance

- INPUT was also requested to assess the general performance of professional services firms in the computer service industry during the period in question. Exhibit 5 shows that the professional services segment of the computer service industry was quite bouyant during this period.

  - Year-to-year revenue increases averaged 17-27%, with increases usually well over 20%; 1982 was the "worst" year with an increase of 17%.

  - The number of companies competing in the industry also grew every year in the period for which data is currently available.

  - Profits reported by public companies showed a steady increase, except during 1981.

- Exhibit 6 and 7 are extracts from the reports producing this data, showing the methodology employed.

EXHIBIT 1: RESPONDENT COMPANIES INCLUDED IN THE TABULATIONS

- Arthur Andersen
- Arthur Young
- Price Waterhouse
- Coopers & Lybrand
- McAuto (Professional Services Division)
- CDC (Professional Services Group)
- Peat Marwick Mitchell & Company

NOTE: THREE OF THE BIG 8 INTERVIEWS WERE WITH THEIR HOUSTON OFFICE

EXHIBIT 2:

TITLE TRANSLATION

INTERVIEW TITLE	INTERNAL TITLES-PER "PROFESSIONAL CLASSIFICATIONS"	SADAF TITLE(S)
Superior to Account/ Field Manager	Director	Project Manager
Account/Field Manager	Field Manager	Systems Analyst I
Project Leader	Project Manager	Computer Systems Analyst
Principal Consultant	Principal Consultant	Data Base Consultant
Senior Consultant	Senior Data Base Consultant, Senior Consultant	Data Base Administrator, Software Consultant
Consultant	Consultant	Software Technician, Systems Analyst II
Systems Designer	Computer Systems Designer	Application Programmer I
Senior Systems Analyst	Senior Consultant	Applications Programmer II

EXHIBIT 3: HOURLY RATES: OVERVIEW

	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN	DB CONSULTANT
AVERAGE (MEDIAN) RATES				
1980	$135	$113	$97	$117
1983	$170	$145	$122	$148
1985	$167*	$151	$140	$154
HIGHEST AND LOWEST RATES				
1980	$105–150	$80–120	$62–105	$95–140
1983	$120–228	$97–160	$76–140	$120–175
1985	$131–220*	$100–175	$78–155	$140–175*

* NO 1985 DATA YET AVAILABLE FOR VENDOR WITH THE HIGHEST 1983 RATE

EXHIBIT 3: HOURLY RATES: OVERVIEW

	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG I	APPL PROG II
AVERAGE (MEDIAN) RATES				
1980	$117	$95	$80	$78
1983	$145	$125	$97	$97
1985	$145*	$128*	$120	$97
HIGHEST AND LOWEST RATES				
1980	$100-120	$85-110	$60-102	$61-90
1983	$110-160	$98-140	$73-130	$69-113
1985	$125-160*	$120-150	$90-140	$85-125

* NO 1985 DATA YET AVAILABLE FOR VENDOR WITH THE HIGHEST 1983 RATE

EXHIBIT 4A: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN	DB CONSULTANT
A (HOUSTON BIG 8)				
1980	$125-145	$110-115	$85-110	$110-125
1983	$155-185	$140-150	$105-140	$140-155
1985	$170-200	$150-160	$115-150	$150-170
B (HOUSTON BIG 8)				
1980	$150	$120	$105	$95
1983	$200	$155	$140	$125
1985	$220	$175	$155	$140
* C (NAT'L OFFICE, BIG 8)				
1980	$135-205	$120	$95	$130
1983	$180-275	$160	$125	$175
1985				

* DATA FROM 1983 SURVEY ** TITLE NOT COMPARABLE

EXHIBIT 4A: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG 1	APPL PROG II
A (HOUSTON BIG 8)				
1980	$110-125	$110	$90-115	$85-95
1983	$140-155	$140	$115-145	$105-120
1985	$150-170	$150	$125-155	$115-130
B (HOUSTON BIG 8)				
1980	$85	$85	$95	$85
1983	$110	$110	$125	$110
1985	$125	$125	$140	$125
* C (NAT'L OFFICE, BIG 8)				
1980	$120	$95	$60	**
1983	$160	$125	$80	**
1985				

* DATA FROM 1983 SURVEY ** TITLE NOT COMPARABLE

EXHIBIT 4B: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN, I	COMP. SYSTEM AN	DB CONSULTANT
D (NAT'L COMP SVS FIRMS) ***				
1980	$105	$105	$105	$105
1983	$120	$120	$120	$120
1985	$140-155	$140-155	$140-155	$140-155
E (NAT'L COMP SVC FIRM)				
1980	$105	$80	$62	$140
1983	$127	$97	$76	$169
1985	$131	$100	$78	$175

*** MANAGERS NOT NORMALLY BILLED TO CLIENTS

EXHIBIT 4B: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG 1	APPL PROG II
D (NAT'L COMP SVS FIRMS) ***				
1980	$100	$86	$64	$61
1983	$114	$98	$73	$69
1985	$140	$120	$90	$85
E (NAT'L COMP SVC FIRM)				
1980	$120	$105	$80	$70
1983	$145	$127	$97	$85
1985	$150	$131	$100	$88

*** MANAGERS NOT NORMALLY BILLED TO CLIENTS

EXHIBIT 4C: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN.	DB CONSULTANT
F (HOUSTON BIG 8; SEE NOTE)				
1980	$110-145	$110-145	$75-110	$75-110
1983	$140-165	$140-185	$90-140	$90-140
1985	$150-200	$150-200	$100-150	$100-150

* * NO COMPARABLE TITLE

NOTE: RESPONDENT, PARTNER-IN-CHARGE, DID NOT KNOW DATA FOR 1980 OR 1983 OR EARLIER RATES OF INCREASE; AVERAGE PERCENT INCREASES FROM OTHER RESPONDENTS APPLIED.

EXHIBIT 4C: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG I	APPL PROG II
F (HOUSTON BIG 8; SEE NOTE)				
1980	$75-110	$60-100	* *	$60-90
1983	$90-140	$75-130	* *	$75-110
1985	$100-150	$80-140	* *	$80-120

* * NO COMPARABLE TITLE

NOTE: RESPONDENT, PARTNER-IN-CHARGE, DID NOT KNOW DATA FOR 1980 OR 1983 OR EARLIER RATES OF INCREASE; AVERAGE PERCENT INCREASES FROM OTHER RESPONDENTS APPLIED.

EXHIBIT 5:

PROFESSIONAL SERVICES COMPANY DATA

	ALL COMPANIES			PUBLIC COMPANIES	
YEAR	NUMBER OF COMPANIES*	SALES ($BILL)*	YEAR TO YEAR SALES GROWTH*	PROFITS GROSS*	(%) NET**
1979	909	$2.9	26%	7.3%	N/A
1980	975	$3.7	27%	8.6%	N/A
1981	1,284	$4.5	21%	7.1%	2.6%
1982	1,348	$5.3	17%	N/A	3.3%
1983	1,400	$6.4	21%	N/A	3.6%
1984	N/A	$7.9**	24%**	N/A	3.9%

SOURCES: * = ADAPSO ANNUAL REPORTS 1980-1984

** = INPUT VENDOR FINANCIAL WATCH

EXHIBIT 6:

METHODOLOGY USED IN 1984 ADAPSO REPORT

- The following is an excerpt from the report itself.

- As noted, the methodology is substantially unchanged from prior years.

I INTRODUCTION

- This 18th annual report on the computer software and services industry has been prepared by INPUT under a commission from the Association of Data Processing Service Organizations (ADAPSO). It is designed for use by industry managers and financial analysts who wish to gain a fuller understanding of the size, growth, and trends of this important and rapidly changing industry.

  - ADAPSO consists of over 700 member companies and represents the interests of the computer software and services industry in such areas as industry statistics, government relations, legal representation, and communications with the financial community.

  - INPUT is a higly regarded international consulting services and marketing research company specializing in the information industry. INPUT has studied the information services industry since 1974 and maintains several ongoing research programs for the industry.

- INPUT's research programs supply information for this report in two ways:

  - INPUT's Company Analysis and Monitoring Program tracks 4,500 information services companies and specifically provides the data for this report on public companies and companies with over $10 million in annual information services revenues.

- INPUT's Market Analysis Program for the information services industry provides detailed forecasts for the next five years. Summary data from these forecasts are used in this report and the performance data obtained from users and vendors in this service is used to reconcile ADAPSO research findings.

- For the purposes of this report for ADAPSO, the industry is described as the "Computer Software and Services Industry."

- As in previous years, this report analyzes the computer software and services industry activities in terms of both mode of service and type of company.

  - "Mode of service" focuses on the end product-processing services, software products, professional services, on turnkey systems--in regard to the revenue sources of the vending companies. For this report

the term "turnkey systems" is synonymous with last year's term "integrated systems."

- "Type of company." on the other hand, is a means of classifying companies according to their primary source of revenue. For example, in this research, companies earning a majority of their revenues from processing serives are classified as processing services companies, even though they may also receive revenue from sales of software products, professional services, or turnkey systems (see Appendix A for a list of definitions used in this report).

- The scope of the research for this year's report is essentially identical to that in the previous year's report, although a few adjustments were made. The major research activities included:

  - A census of all companies with more than $10 million annually in noncaptive U.S. information services revenue carried out as part of INPUT's continuing industry research.

    - More than 400 companies were researched.

- Three-hundred-twelve (312) companies qualified for the final list and were included in the study.

- A stratified random sample of companies with annual revenue greater than $250,000 but less than $10 million in noncaptive U.S. information services revenue.

  - Over 300 companies were interviewed by telephone.

  - Two-hundred sixty-nine (269) companies met the criteria for inclusion in this report.

- The distribution of these companies by size and type of company is included as ExhibitI-1.

- Specific attention was paid this year to microcomputer-based companies and "traditional" companies with some portion of their revenue in one or more service modes derived from microcomputer products/services.

- Research was also performed on all publicly held, U.S.-based computer services companies.

  - Two-hundred-forty-three companies were analyzed.

- Ninty-five (95) companies were selected for detailed analysis. The distribution of these companies by major type of service offered is included as Exhibit 1-2.

- To be included in this analysis, a company was required to derive at least 75% of its total revenue from information services with not more than 25% of total information serivces revenue coming from foreign sources.

- This year for the first time vendors of Value-Added Network (VAN) services were included in this analysis.

- The reader should also note the following.

  - All references to revenue include only U.S. non-captive computer software and services revenue unless otherwise indicated.

  - The data for this study were gathered from February to May of 1984.

- Appendix B contains a reconciliation of figures reports in last year's report compared to those included in this year's report.

- A data base of industry statistics is included in Appendix C.

- A copy of the telephone interview questionnaire is included as Appendix D.

EXHIBIT I-1

NUMBER OF COMPANIES IN RESEARCH BASE
BY TYPE AND SIZE OF COMPANY

TYPE OF COMPANY	SIZE OF COMPANY <$10 MILLION	>$10 MILLION	TOTAL
Processing Services	91	120	211
Software Products	79	74	153
Professional Services	47	76	123
Turnkey Systems	52	42	94
TOTAL	269	312	581

EXHIBIT I-2

NUMBER OF COMPANIES IN PUBLIC COMPANY ANALYSIS
BY TYPE AND SIZE OF COMPANY

TYPE OF COMPANY	SIZE OF COMPANY <$10 MILLION	>$10 MILLION	TOTAL
Processing Services	9	23	32
Software Products	2	20	22
Professional Services	1	24	25
Turnkey Systems	2	14	16
TOTAL	14	81	95

EXHIBIT 7:

METHODOLOGY USED IN INPUT'S VENDOR FINANCIAL WATCH

- The following is an excerpt from the most recent report.

I INTRODUCTION

- The Vendor Financial Watch (VFW) is a quarterly INPUT analysis of up-to-date financial reports of public information processing services, professional servies, software products, and turnkey systems companies, both for comparative purposes (vendor to vendor) and to enable participants in a given sector of the information services market to monitor the overall growth of their sector.

- Each sector of the information services market is analyzed separately, both from a revenue and from a net income standpiont. The growth trends are analyzed in the last three columns of each data sheet in increasing calendar sequence; this is intended to provide an indication of the very latest developments in revenue and net income growth.

- Each information services market sector is also commented on separately, highlighting individual company successes and failures, and the trend in the market sector as a whole. The summary analysis at the back of the VFW report analyzes the comparative trends between sectors and comments on the trend of the total Information Services market. This section is particularly important since it identifies growth patterns very clearly.

- This quarterly Vendor Financial Watch report is intended as a planning tool for market planning executives and as an information newsletter for company executives. The data contained are extracted from published sources, annual reports, and 10-K reports, supplemented by INPUT's estimates (denoted by a * following a value) where data was not yet available from the company.

- This issue covers 100 information services vendors.

II DATA REPORTED

- The VFW report is divided into two sections:
  - A summary of last quarter's acquisitions.
  - Information services companies' financial performance.
- Financial data provided includes each vendor's revenue and net income, reported on a calendar quarterly basis and comparisons on performance provided for:
  - 1984 versus 1983 (year on year);
  - Last calendar nine months; results compared to the year earlier.
  - Last calendar six months' results compared to the year earlier period.
- Fiscal quarterly revenue is approximated to calendar quarterly revenue as follows:

- Quarterly revenue reported as of February, March, and April is reported as Q1;

- Quarterly revenue reported as of May, June and July is reported as Q2;

- Quarterly revenue reported as of August, September, and October is reported as Q3;

- Quarterly revenue reported as of November, December and January is reported as Q4.

- Fiscal year-end dates are provided in column 2 so that actual quarters for each company can be identified. Values that are followed by an asterick (*) are INPUT estimates, pending release of the final results from the vendor. These are included so that the overall totals for each sector may be as complete as possible.

APPENDIX A: 1983 QUESTIONNAIRE

CATALOG NO. YPSP ☐☐

PROFESSIONAL SERVICES PRICING PRACTICES

INPUT is a research and consulting firm in Saddle Brook, NJ. We are conducting a study on professional service firms' pricing practices. In return for your taking part in our study, we will send you a summary of our report at no charge.

1. Is your professional service business nationwide or is most of your work conducted in particular geographic areas?

   ☐ Nationwide

   ☐ Particular areas - Which ones?

   _____

   _____

   _____

   _____

2. Is each of the following customer or product areas a primary or secondary priority for your professional services activities?

	Primary	Secondary
Commercial Accounts	_____	_____
Government Accounts	_____	_____
Federal ADP	_____	_____
Federal Embedded Computer (Weapons) Systems	_____	_____
State and Local	_____	_____
Manufacturing Applications	_____	_____
Banking and Finance Applications	_____	_____
Health Care Applications	_____	_____
Other (describe)	_____	_____

3a. What professional service firms do you see as your primary competition now? What do you see as their strengths?

_____

_____

_____

_____

3b. What other firms do you think might be added to that list in two or three years?

_____

_____

_____

4. Do you use the same billing rate for straight T&M engagements as for task-oriented engagements (even if billed for on a T&M basis)?

☐ Yes ☐ No

Why? _____

_____

_____

_____

IF NO, discuss differences: _____

_____

_____

_____

5a. When producing a fixed price proposal, do you use the same rate structure as used on T&M projects for project personnel?

☐ Yes ☐ No

IF NO, describes differences: _____

_____

_____

5b. Is a "surcharge" or "contingency factor" added to fixed price proposals over and above the result produced by your billing rate calculations (includes increasing number of hours)?

☐ Yes ☐ No

If YES, how much, on the average? _____

6. How important is each of the following factors in affecting changes in your billing rates (1 = low, 5 = high)? Why?

	Importance	Reason
General Inflation Rate		
Your Firm's Personnel Turnover		
Your Cost Structure		
Your Customers' Economic Conditions		
Personnel Shortages		
Your Competitors' Rates		
Proprietary Productivity Tools or Approaches		

7. If the average billing rates for your firm's management and technical staff equalled 100 in 1980, how would you see this index changing for your firm in each year up to 1984? Why?

Year	Index	Reason
1980	100	
1981		
1982		
1983		
1984		

8. Do you have formal variations (either higher or lower) from your standard rates related to:

	Yes	No
• Type of Customer (e.g., commercial vs. government)	_____	_____
• Application Type (e.g., manufacturing vs. general commercial)	_____	_____
• Competitive vs. Noncompetitive Situations	_____	_____
• Geographic Area	_____	_____
• Special Expertise	_____	_____
• Other (describe) _____	_____	_____

FOR ALL AREAS ANSWERED "YES," ASK:

- Why?
- Give some examples.
- How large is the variance?

COMPLETE ANSWERS ON ATTACHED SHEET.

8b. DESCRIPTION OF RATE VARIATION

Area	Reason	Examples	Size of Variance
Type of Customer (e.g., commercial vs. government)			
Application Type (e.g., manufacturing vs. general commercial)			
Competitive vs. Noncompetitive Situations			
Geographic Area			
Special Expertise			
Other (describe)			

CATALOG NO. YPSP[ ]

INPUT

Do you ever give discounts from your standard rates?

☐ Yes ☐ No

IF YES:

- Under what conditions? _____

  _____

- How is this accomplished (e.g., reducing hourly rates, reducing billed hours, changing job categories, cost plus fixed fee)?

  _____

  _____

  _____

- About how often does this occur?

  _____

- About what percentage reduction from your standard rates is your typical discount? (May be one number or a range.)

  _____

10. Could you provide me with your current (1983) rates per hour for the following categories? We have defined each title as including specific years of experience; if you do not use exactly the same definition, please provide the rate for the closest title and tell me what your definition is.

Title	Years Experience *	Title Variance	1983 Rate ($ per hour)
Account/Field Manager	9 - 12		
Project Leader	7 - 10		
Principal Consultant (in a specialized area)	10 - 15		
Senior Consultant (in a specialized area)	9 - 12		
Consultant (in a specialized area)	8 - 10		
Principal System Designer	7 - 10		
Senior Systems Analyst	5 - 7		
Systems Analyst	2 - 5		
Junior Systems Analyst	0 - 2		
Senior Programmer	5 - 7		
Programmer	2 - 5		
Junior Programmer	0 - 2		

* Not including education.

11. Do you furnish a schedule of professional service rates to prospective clients?

☐ Yes ☐ No

IF YES: Would you send INPUT a copy?

☐ Yes ☐ No

APPENDIX B: 1985 QUESTIONNAIRE

CATALOG NO. [NPSQ]

PROFESSIONAL SERVICES PRICING PRACTICES: 1985

INPUT is a research and consulting firm in Saddle Brook, NJ. We are conducting a study on professional service firms' pricing practices. In return for your taking part in our study, we will send you a summary of both our new and old reports at no charge.

1. Is your professional service business nationwide or is most of your work conducted in particular geographic areas?

   ( ) Nationwide

   ( ) Particular areas - Which ones?

   _____

   _____

   _____

   _____

2. Is each of the following customer or product areas a primary or secondary priority for your professional service activities?

	PRIMARY	SECONDARY
Commercial Accounts	_____	_____
Government Accounts	_____	_____
Federal ADP	_____	_____
Federal Embedded Computer (Weapons) Systems	_____	_____
State and Local	_____	_____
Manufacturing Applications*	_____*	_____*
Banking and Finance Applications	_____	_____
Health Care Applications	_____	_____
Other (describe)	_____	_____

* If primary or secondary manufacturing applications not checked, terminate interview.

3. If the average billing rates for your firm's management and technical staff equalled 100 in 1980, how would you see this index changing for your firm in each year up to 1985? Did you change your rates each year?

YEAR	INDEX	RATES CHANGES (CHECK)
1980	100	_____
1981	_____	_____
1982	_____	_____
1983	_____	_____
1984	_____	_____
1985	_____	_____

4. Could you provide me with your current (1985) rates per hour for the following categories? We have defined each title as including specific years of experience; if you do not use exactly the same definition, please provide the rate for the closest title and tell me what your definition is. What were these titles' rates in 1980 and 1983 (if dollars not available, give % of current rate).

TITLE	YEARS*	TITLE VARIANCE	1985 RATE ($ PER HOUR)	1980 RATE	1983 RATE
Account/ Field Manager	10-15				
Person whom Account/Field Manager Reports to (give typical title	15+				
Project Leader	7-10				
Principal Consultant (in a technical area)	10-15				
Senior Consultant (in a technical Area)	9-12				

TITLE	YEARS*	TITLE VARIANCE	1985 RATE ($ PER HOUR)	1980 RATE	1983 RATE
Consultant (in a technical area)	8-10				
System Designer	7-10				
Senior Systems Analyst	5-7				
Systems Analyst	2-5				
Senior Programmer	5-7				
Programmer	2-5				

*Not including education.

5. Do you have formal variations (either higher or lower) from your standard rates related to:

	YES	NO
• Application Type (e.g., manufacturing vs general commercial).	_____	_____
• Geographic Area	_____	_____
• Special Expertise	_____	_____
• Other (describe) _____	_____	_____

FOR ALL AREAS ANSWERED "YES," ASK:

- Why?
- Give some examples.
- How large is the variance?

5b. DESCRIPTION OF RATE VARIATION

AREA	REASON	EXAMPLES	SIZE OF VARIANCE
Application Type (e.g., manufacturing vs.general commercial	_____	_____	_____
Geographic Area	_____	_____	_____
Special Expertise	_____	_____	_____
Other Describe	_____		
	_____		
	_____		

6. Do you ever give discounts from your standard rates?

( ) YES ( ) NO

IF YES:

- Under what conditions? _____

  _____

  _____

- How is this accomplished (e.g., reducing hourly rates, reducing billed hours, changing job categories, cost plus fixed fee)? _____

  _____

  _____

  _____

- About how often does this occur? _____

  _____

  _____

- About what percentage reduction from your standard rates is your typical discount? (May be one number or a range.) _____

  _____

  _____

7. When producing a fixed price proposal, do you use the same rate structure as used on T&M projects for project personnel?

( ) YES ( ) NO

IF NO, describe differences: _____

_____

_____

7b. Is a "surcharge" or "contingency factor" added to fixed price proposals over and above the result produced by your billing rate calculations (includes measuring number of hours)?

( ) YES ( ) NO

IF YES, how much, on the average? _____

7c. Sometimes you may perform task-oriented engagements, even though they are billed on a T&M basis. Do you use the same billing rate as for straight T&M work?

( ) YES ( ) NO

Why? _____

_____

_____

If NO, discuss differences: _____

_____

_____

8. Do you furnish a schedule of professional service rates to prospective clients?

( ) YES ( ) NO

IF YES: Would you send INPUT a copy?

( ) YES ( ) NO

ATTACHMENT

PROFESSIONAL CLASSIFICATIONS

Account or Field Manager - Senior level manager who monitors performance against the scope of work, and contract schedules and plans. The project leader reports directly to this individual. Field managers provide the principal interface with the customer on contract performance and staffing. (10-15 years experience)

Project Leader - Plans, monitors and directs the efforts under a contract. Responsible for all on-site efforts, as well as customizing and off-site efforts. (7-10 years experience)

Principal Consultant - Top level consultant within a function (software, applications, operations, data base, communications, etc.) who is capable of advising senior management within the technical or functional organizations. (10-15 years experience)

Senior Consultant - Senior level individual who advises on specialized systems functions. (9-12 years experience)

Consultant - Individual who works directly with line and data processing organizations and uses specialized knowledge to develop methods and procedures for systems installation and implementation. (8-10 years experience)

System Designer - Individual who translates the functional design into the computer system design. (7-10 years experience)

OIL COMPANY PERFORMANCE

- Martin Marietta requested that INPUT prepare overview data from public sources on oil company performance during the period 1980-1983.

- Exhibit A shows the following:

  - Revenues were essentially flat

  - Profits fell badly

  - Profit margins for the integrated international companies fell compared to domestic integrated companies.

  - Taking Shell as an example, its ROE sank 25% from 1980 to 1983.

EXHIBIT A: SELECTED OIL COMPANY STATISTICS 1979–1983

	1979	1980	1981	1982	1983
"SEVEN SISTERS" (SHELL EXXON, MOBIL BP, TEXACO, SOCAL, GULF)					
REVENUES ($ BILL)	$340	$425	$450	$420	-
GROSS PROFIT ($ BILL)	$ 15	$ 23	$ 19	$13.5	-
PROFIT MARGIN					
DOMESTIC INTEGRATED	21.9%	20.9%	19.7%	20.0%	21.0%
INTERNATIONAL INTEGRATED (INCLUDES SHELL)	16.2%	12.7%	10.6%	10.3%	13.1%
SHELL					
GROSS REVENUES ($ BILL)	$14.5	$19.8	$21.7	$20.2	$19.9
NET REVENUES ($ BILL)	$ 1.1	$ 1.5	$ 1.7	$ 1.6	$ 1.6
RETURN ON EQUITY	16.1%	19.0%	18.4%	15.6%	14.4%

"SEVEN SISTER" DATA: THE ECONOMIST. OTHER DATA: S & P COMPANY AND INDUSTRY REPORTS, SHELL ANNUAL REPORTS.

INPUT

AGGREGATE BILLING RATE CHANGES

- Exhibit B shows the aggregate year-to-year billing rate changes from 1980 to 1985, as reported by respondents.

  - On the average, billing rates increased 37% during this period.

  - Over half the increase occurred in 1981 and 1982.

  - These changes track closely to the overall inflation rate.

EXHIBIT B: BILLING RATE CHANGES SINCE 1980 (1980=100)

	INDEX	YEAR-TO-YEAR INCREASE
1980	100	-
1981	110	10%
1982	119	8.2%
1983	127	6.7%
1984	132	3.9%
1985	137	3.8%

SOURCE: AVERAGE RATE OF INCREASES FROM RESPONDING VENDORS

EXHIBIT 3A: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN	DB CONSULTANT
A (HOUSTON BIG 8)				
1980	$125-145	$110-115	$85-110	$110-125
1983	$155-185	$140-150	$105-140	$140-155
1985	$170-200	$150-160	$115-150	$150-170
B (HOUSTON BIG 8)				
1980	$150	$120	$105	$95
1983	$200	$155	$140	$125
1985	$220	$175	$155	$140
* C (NAT'L OFFICE, BIG 8)				
1980	$135-205	$120	$95	$130
1983	$180-275	$160	$125	$175
1985				

* DATA FROM 1983 SURVEY ** TITLE NOT COMPARABLE

EXHIBIT 3A: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG 1	APPL PROG II
A (HOUSTON BIG 8)				
1980	$110-125	$110	$90-115	$85-95
1983	$140-155	$140	$115-145	$105-120
1985	$150-170	$150	$125-155	$115-130
B (HOUSTON BIG 8)				
1980	$85	$85	$95	$85
1983	$110	$110	$125	$110
1985	$125	$125	$140	$125
* C (NAT'L OFFICE, BIG 8)				
1980	$120	$95	$60	**
1983	$160	$125	$80	**
1985				

* DATA FROM 1983 SURVEY ** TITLE NOT COMPARABLE

EXHIBIT 3B: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG I	APPL PROG II
D (NAT'L COMP SVS FIRMS) ***				
1980	$100	$86	$64	$61
1983	$114	$98	$73	$69
1985	$140	$120	$90	$85
E (NAT'L COMP SVC FIRM)				
1980	$120	$105	$80	$70
1983	$145	$127	$97	$85
1985	$150	$131	$100	$88

*** MANAGERS NOT NORMALLY BILLED TO CLIENTS

EXHIBIT 3B: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN	DB CONSULTANT
D (NAT'L COMP SVS FIRMS) ***				
1980	$105	$105	$105	$105
1983	$120	$120	$120	$120
1985	$140-155	$140-155	$140-155	$140-155
E (NAT'L COMP SVC FIRM)				
1980	$105	$80	$62	$140
1983	$127	$97	$76	$169
1985	$131	$100	$78	$175

*** MANAGERS NOT NORMALLY BILLED TO CLIENTS

EXHIBIT 3C: HOURLY RATES (DETAIL)

COMPANY	PROJ. MGR.	SYS. AN. I	COMP. SYSTEM AN.	DB CONSULTANT
F (HOUSTON BIG 8; SEE NOTE)				
1980	$110-145	$110-145	$75-110	$75-110
1983	$140-185	$140-185	$90-140	$90-140
1985	$150-200	$150-200	$100-150	$100-150

* * NO COMPARABLE TITLE

NOTE: RESPONDENT, PARTNER-IN-CHARGE, DID NOT KNOW DATA FOR 1980 OR 1983 OR EARLIER RATES OF INCREASE; AVERAGE PERCENT INCREASES FROM OTHER RESPONDENTS APPLIED.

EXHIBIT 3C: HOURLY RATES (DETAIL)

COMPANY	DB ADMIN., SW CONS.	SW. TECH., SYS. AN. II	APPL PROG I	APPL PROG II
F (HOUSTON BIG 8; SEE NOTE)				
1980	$75-110	$60-100	* *	$60-90
1983	$90-140	$75-130	* *	$75-110
1985	$100-150	$80-140	* *	$80-120

* * NO COMPARABLE TITLE

NOTE: RESPONDENT, PARTNER-IN-CHARGE, DID NOT KNOW DATA FOR 1980 OR 1983 OR EARLIER RATES OF INCREASE; AVERAGE PERCENT INCREASES FROM OTHER RESPONDENTS APPLIED.